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REMARKS

This is intended as a full and complete response to the Office Action dated March 4, 2005, having a shortened statutory period for response set to expire on June 4, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-4, 8, 13-15, 17-21, 47-52 and 59 remain pending in the application and are shown above. Claims 1-4, 13 and 59 are withdrawn by the Examiner. Claims 8, 14, 15, 17-21 and 47-52 are rejected. Claims 8 and 17-21 are amended to correct antecedent basis errors. Claims 8 and 47 are amended for clarity. These amendments are not presented to distinguish a reference, thus, the claims as amended are entitled to a full range of equivalents if not previously amended to distinguish a reference. Reconsideration of the rejected claims is requested for reasons presented below.

Claims 8 and 17-21 are rejected under 35 U.S.C. § 112 for being indefinite. Applicant respectfully traverses the rejection. Claims 8 and 17-21 are currently amended. Withdrawal of the rejection is requested.

Claims 8, 15, and 17-19 are rejected under 35 USC § 103(a) in view of *Okayama* (JP 2-121347) in view of *Young* (U.S. 6,677,594), or alternatively, *Young* in view of *Okayama*. Claims 14, 47, and 51 are rejected under 35 USC § 103(a) in view of *Okayama* (JP 2-121347) in view of *Young* (US 6,677,594), or alternatively, *Young* in view of *Okayama* and further in view of *Hansson, et al.* (U.S. 4,621,936). Claims 20 and 21 are rejected under 35 USC § 103(a) in view of *Okayama* (JP 2-121347) in view of *Young* (US 6,677,594), or alternatively, *Young* in view of *Okayama* and further in view of *Kroeker, et al.* (U.S. 5,955,858). Claims 49-50 are rejected under 35 USC § 103(a) in view of *Okayama* (JP 2-121347) in view of *Young* (US 6,677,594), or alternatively, *Young* in view of *Okayama, Kroeker*, and further in view of *Masciarelli, et al.* (U.S. 4,706,793). Claim 52 is rejected under 35 USC § 103(a) in view of *Okayama* (JP 2-121347) in view of *Young* (US 6,677,594), or alternatively, *Young* in view of *Okayama* and further in view of *Masciarelli, et al.* (U.S. 4,706,793). Claim 48 is rejected under 35 USC § 103(a) in view of *Okayama* (JP 2-121347) in view of *Young* (US 6,677,594), or alternatively, *Young* in view of *Okayama* and further in view of *Hansson*,

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et al. (U.S. 4,621,936) and further in view of *Masciarelli, et al.* (U.S. 4,706,793). Applicant respectfully traverses the rejections. Claims 8 and 47 have been amended.

The *Okayama* reference teaches balls housed in a structure containing ball bearings that are used in combination with driving rollers and guide rollers to move a wafer as part of a wafer rotation system. *Young* uses bores to support the plunger and does not suggest a socket with a support surface to support the plunger. *Hansson* suggests using a smooth rolling ball because it reduces the likelihood of corrosion from ink, not because it provides any support properties. *Kroeker* does not use a socket with a formed end. *Masciarelli* teaches polished rollers with bores which contain plungers that are movable by means of an inflatable bladder. *Masciarelli* does not suggest using a polished surface on any alternative support assembly nor does it suggest using its rollers in a substrate processing environment.

Young, Okayama, Hasson, Kroeker, and Masciarelli, alone or in combination, do not teach, show, or suggest at least one socket having a ball support surface and a formed end, and a ball rotatably disposed on the ball support surface and retained in the socket by the formed end, the ball adapted to contact and support the substrate in a spaced-apart relation to the support member, as recited in claim 8, and claims dependent thereon. Furthermore, *Young, Okayama, Hasson, Kroeker, and Masciarelli*, alone or in combination, do not teach, show, or suggest a socket having a ball support surface and a formed end, and a ball rotatably disposed on the ball support surface in the socket and retained in the socket by the formed end, wherein the ball has a surface roughness of 4 micro-inches or smoother, the ball adapted to contact and support a substrate thereon, as recited in claim 47, and claims dependent thereon. Withdrawal of the rejections is respectfully requested.

Claims 8 and 15 are rejected under 35 U.S.C. § 102(a) as anticipated by *Toshio* (JP 2000-353737). Applicant respectfully traverses the rejection. Claim 8 has been amended. *Toshio* has an assembly that does not utilize a formed end. Therefore, *Toshio*, alone or in combination, does not teach, show, or suggest at least one socket having a ball support surface and a formed end, and a ball rotatably disposed on the ball support surface and retained in the socket by the formed end, as recited in claim 8, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

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Claims 17-19 are rejected under 35 U.S.C. 103(a) over *Toshio* in view of *Young*. Claims 14, 47, and 51 are rejected under 35 U.S.C. § 103(a) as anticipated by *Toshio* (JP 2000-353737) in view of *Young* and *Hasson*. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) over *Toshio* in view of *Kroeker, et al.* Claims 49-50 are rejected under 35 U.S.C. § 103(a) over by *Toshio* (JP 2000-353737) in view of *Young* and *Hasson* and further in view of *Kroeker*. Claim 52 is rejected under 35 U.S.C. 103(a) over *Toshio* in view of *Masciarelli*. Claim 48 are rejected under 35 U.S.C. § 103(a) over *Toshio* (JP 2000-353737) in view of *Young* and *Hasson* and further in view of *Masciarelli*. Applicant respectfully traverses the rejections. Claims 8 and 47 have been amended. *Toshio* has an assembly that does not utilize a formed end. *Young* uses bores to support the plunger and does not suggest a socket with a support surface to support the plunger. *Hasson* does not teach a substrate support ball, nor does it suggest alternative uses of the rolling ball. *Masciarelli* does not suggest using a polished surface on any alternative support assembly nor does it suggest using its rollers in a substrate processing environment.

Toshio, Young, Hasson, Kroeker, and Masciarelli, alone or in combination, do not teach, show, or suggest at least one socket having a ball support surface and a formed end, and a ball rotatably disposed on the ball support surface and retained in the socket by the formed end, the ball adapted to contact and support the substrate in a spaced-apart relation to the support member, as recited in claim 8, and claims dependent thereon. Furthermore, *Toshio, Young, Hasson, Kroeker, and Masciarelli* alone or in combination, do not teach, show, or suggest a socket having a ball support surface and a formed end, and a ball rotatably disposed on the ball support surface in the socket and retained in the socket by the formed end, wherein the ball has a surface roughness of 4 micro-inches or smoother, the ball adapted to contact and support a substrate thereon, as recited in claim 47, and claims dependent thereon. Withdrawal of the rejections is respectfully requested.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the

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primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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